



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

C45-13-1
Job Sheet 180440



Part No: C45-13-1

Job Qty: 40 ea

DAS
21
9-89

Part Name: Keeper Bushing



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 7/6/18

Job Tracking No:

Due Date: 8/17/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG C45-13-1 REV 4A IPP REV A 18.02.14 NEW ISSUE FK VERIFY DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	40 Ea	8/17/18	8/17/18	0.00	0.00	Start Up Machining-4		18/8/18 JBD
120	CNC Lathe	40 pcs	8/17/18	8/17/18	1.00	4.00	MORI SL-154		18/8/18 JBD
130	QC	40 pcs	8/17/18	8/17/18	0.00	0.00	QC2 Machining-5		
140	QC	40 pcs	8/17/18	8/17/18	0.00	0.00	QC8 Machining-5		18-08-13
150	Outsource	40 pcs	8/17/18	8/17/18			ATL002-VC		18-08-13
180	Outsource	40 pcs	8/17/18	8/17/18			GRO002-VC		18-08-13
190	Packaging	40 pcs	8/17/18	8/17/18	0.00	0.00	Packaging2		18-08-13
200	QC	40 pcs	8/17/18	8/17/18	0.00	0.00	QC6		18-08-13
210	Packaging	40 pcs	8/17/18	8/17/18	0.00	0.00	Packaging3		18-08-13
220	QC21-SA	40 Ea	8/17/18	8/17/18	0.00	0.00	QC21		18-08-13

Part Op 120 - 1-Machine as per folio FC039 FOLIO REV:

DWG REV: 2-Debur

Descriptions: 150 - 1--Issue P/O to Atlantic Heat Treat; P/O 040741 RC 44-46 2-Bead blast 3- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER Atlantic Heat Treat to ship directly to Groupe Altech or ATG*** Material 4140

180 - -Issue P/O to Groupe Altech: P/O -Nickel plate, QQ-N-290, Class 2, Grade E or F -Nickel Plate .0004-.0006 - Certificate of Conformity is required

190 - Receive

210 - Identify and Stock

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140QT-R0.750 AISI 4140 Quenched & Tempered Steel Round Bar 0.750" Dia.		1.7200 ft (.043 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-4140QT-R0.750	2	43	0

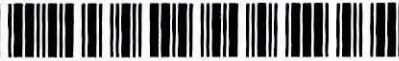
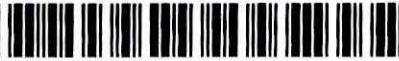
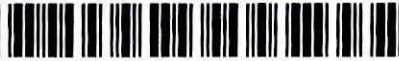
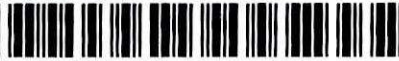
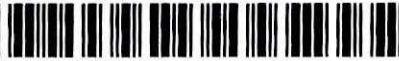
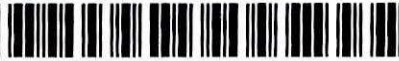
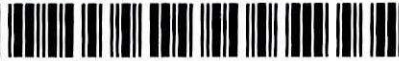
Part Specifications

Specifications could not be found.

Date:

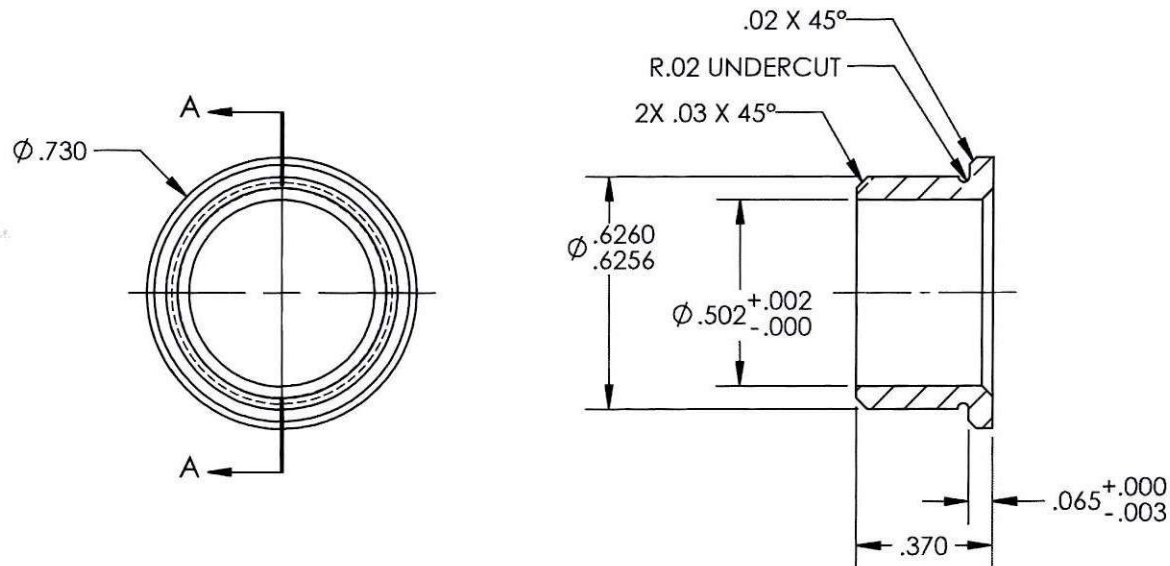
Date:

Work Order update only

Work Order: _____ Part No. _____ ALCOA # _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐		Engineering ☐ Quality ☐ Other ☐	
ve :  Container No: S101278  Part: C45-13-1 Job No: 180440 Serial No/Batch: S101278 Revision: 4A Inspector: Exp Date: Instructions:				MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Work Order: _____ Part No.: _____ ALCOA #: _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐		Engineering ☐ Quality ☐ Other ☐	
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ve :  Container No: S101278  Part: C45-13-1							

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
3		AS DRAWN BY CANAM.	9/12/2012	RJC	
4		CH'D FROM Ø.624 +.001/-0.000 TO Ø.6260-.6256, HEAT TREAT FROM RC 45-48 TO RC 44-46.	6/18/2014	JAG	RJC
4A	14-0127	CH'D TITLE BLOCK WAS RED BARN IS DART. ADDED BAG & LABEL NOTE. CH'D TOLERANCE ON NON-CRITICAL DIMENSIONS.	8/14/2014	DPD	RW



SECTION A-A

NOTES:

1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.
2. BAG & LABEL WITH BATCH NUMBER.

DART AEROSPACE	
TITLE KEEPER BUSHING	
DWG NO. C45-13-1	REV 4A
MAT'L 4140	DRAWN BY: CANAM
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D. Weir</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT TREAT RC 44-46
.XX ± .01 ANGLES ± 5°	FINISH SEE NOTE 1
.X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 2:1	DATE 5/15/1997
SHEET 1 OF 1	

.6273

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS
			C45-13-1	1	KEEPER BUSHING	4140	Ø3/4 X 1/2



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040741**

Supplier: ATL002-VC
Atlantic Heat Treat 2001
401 Frankcom
Ajax
ON
L1S R14 Canada
Phone: 866 257 6395

PO No: PO040741
PO Date: 8/14/18
Due Date: 8/24/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	180440	C45-13-1	Keeper Bushing 1--Issue P/O to Atlantic Heat Treat; P/O _____ RC 44-46 2-Bead blast 3- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER Atlantic Heat Treat to ship directly to Groupe Altech*** Material 4140	Firmed	-	8/21/18	40 pcs	0 pcs	40 pcs	\$4.3215/pcs	\$172.86

40 X

AUG 21 2018

Line Item Note **super rush - need to be shipped to Altech asap**

2	181657	C10-9-1	Latch 1--Issue P/O to Atlantic Heat Treat; P/O _____ RC 53-55 2-Bead blast 3- Certificate of Conformity is required	Firmed	-	8/21/18	15 pcs	0 pcs	15 pcs	\$7.764/pcs	\$116.46
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15 X

AUG 21 2018

Grand Total: \$289.32

Order Notes

CT.

Order Notes**Procurement Quality Clauses**

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A022 Apical Processing

A024 process certifications

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 8/21/18 11:33 AM dart.tsimiklis.chrisoula

Shipping Ticket

Sold To: 1448
DART AEROSPACE LTD.
1270 ABERDEEN ST

HAWKESBURY ON K6A 1K7

Ship To: 154817
DART AEROSPACE LTD.
1270 ABERDEEN ST

HAWKESBURY ON K6A 1K7

Page 1 of 1

Purchase Order Number	Packing List No	Customer Job No	Route	Carrier
PO040741				

Quantity	Part No. / Part Name / Part Description	Pounds
	40PCS MATERIAL 4140 ✓ ANNEALING AND HEAT TREAT TO 44-46 RC SNAD BLAST, C OF C, PRT# C45-13-1, JOB# 180440	DAS 61 9-89

Container Type	# Of Containers	Cust Cont Id	Container Type	# Of Containers	Cust Cont Id
BOX	1				

NOTICE: OUR LIABILITY IS LIMITED TO OUR INVOICE CHARGES ONLY

Shipped Complete

Quantity Shipped:

✓ 40

Pounds Shipped:

1.00

Order No.: 157636

Shipped Complete

Quantity Shipped:

40.00

Received By:

Date:

Pounds Shipped:

1.00

Sold To: DART AEROSPACE LTD.

Shipped ON: 08/16/2018

44RC
8-17-18

Certification

Date: 08/17/2018

Entry Date: 08/16/2018

Page: 1 of 1

To:DART AEROSPACE LTD.
1270 ABERDEEN ST.

Purchase Order No.: PO040741

Packing List No.:

HAWKESBURY ON K6A 1K7

Material: 4140

We are pleased to provide you with the following Certificate of Compliance.

Quantity	Part Number / Part Name / Part Description	Pounds
40	40PCS MATERIAL 4140 ANNEALING AND HEAT TREAT TO 44-46 RC SNAD BLAST, C OF C, PRT# C45-13-1, JOB# 180440	1

Insp. Type	Scale	Minimum	Maximum	Number	Other
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Customer Requirements:

Harden rockwell

Results:

Harden ROCKWELL

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9-89

44.

46.

44. TESTED AS PER SAMPLING PLAN

HEAT TREATED TO 44 RC AS PER CUSTOMER REQUEST

STATEMENT OF LIMITED LIABILITY (PLEASE READ CAREFULLY): ALL WORK IS ACCEPTED SUBJECT TO THE FOLLOWING CONDITIONS: It is recognized that even after employing all the scientific methods known to us, hazards still remain in metal treating. THEREFORE, OUR LIABILITY SHALL NOT EXCEED TWICE THE AMOUNT OF OUR CHARGES FOR THE WORK DONE ON ANY MATERIAL (FIRST TO REIMBURSE FOR THE CHARGES AND SECOND TO COMPENSATE IN THE AMOUNT OF THE CHARGES), EXCEPT BY WRITTEN AGREEMENT SIGNED BY THE METAL TREATER. THE CUSTOMER, BY CONTRACTING FOR METAL TREATMENT, AGREES TO ACCEPT THE LIMITS OF LIABILITY AS EXPRESSED IN THIS STATEMENT TO THE EXCLUSION OF ANY AND ALL PROVISIONS AS TO LIABILITY ON THE CUSTOMER'S OWN INVOICES, PURCHASE ORDERS OR OTHER DOCUMENTS. IF THE CUSTOMER DESIRES HIS OWN PROVISIONS AS TO LIABILITY TO REMAIN IN FORCE AND EFFECT, THIS MUST BE AGREED TO IN WRITING, SIGNED BY AN OFFICER OF THE TREATER. IN SUCH EVENT, A DIFFERENT CHARGE FOR OUR SERVICES REFLECTING THE HIGHER RISK TO TREATER, SHALL BE DETERMINED BY THE TREATER AND CUSTOMER. THE TREATER MAKES NO EXPRESS OR IMPLIED WARRANTIES AND SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF THE FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, AS TO THE PERFORMANCE OF CAPABILITIES OF THE MATERIAL AS HEAT TREATED, OR THE HEAT TREATMENT. THE AFOREMENTIONED LIMITATION OF LIABILITY STATED ABOVE IS SPECIFICALLY IN LIEU OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND OF ANY OTHER SUCH OBLIGATION ON THE PART OF THE TREATER. No claim for shortage in weight or count will be entertained unless presented within five (5) working days after receipt of materials by customer. No claim will be allowed for shrinkage, expansion, deformity, or rupture of material in treating or straightening, except by prior written agreement, as above, nor in any case for rupture caused by or occurring during subsequent grinding. Whenever we are given material with detailed instructions as to treatment, our responsibility shall end with the carrying out of those instructions. Failure by a customer to indicate plainly and correctly the kind of material (i.e., proper alloy designation) to be treated, shall cause an extra charge to be made to cover any additional expense incurred as a result thereof, but shall not change the limitation of liability stated above. Customer agrees there will be no liability on the treater in contract for any special, indirect or consequential damages arising whatsoever, including but not limited to personal injury, property damage, loss of profits, loss of production, recall or any other losses, expenses or liabilities allegedly occasioned by the work performed on the part of the treater. It shall be the duty of the customer to inspect the merchandise immediately upon its return, and in any event claims must be reported prior to the time that any further processing, assembling or any other work undertaken. OUR LIABILITY TO OUR CUSTOMERS SHALL CEASE ONCE ANY FURTHER PROCESSING, ASSEMBLING OR ANY OTHER WORK HAS BEEN UNDERTAKEN ON SAID MATERIAL. No agent or representative is authorized to alter the above conditions, except by writing duly signed by an officer of treater.


KEAN SHEPHERD
QUALITY CONTROL

ATLANTIC HEAT TREATING 2001 LTD



Certificat de Conformité / Certificate of Compliance

(011947-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

011947 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
22-Aug-2018		Aman		040742				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	C45-13-1 Rev.	C45-13-1 01 - E-NIC STEEL 200 [E-NICKEL STEEL 200] QQ-N-290 CLASS 2 GRADE E OR F 0.0004-0.0006 THICK	E-NICKEL STEEL CH	39	39	0	0	0

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9-89

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.